REMARKS

Claims 1-41 are pending in this application and stand rejected. Applicants respectfully request reconsideration and allowance of Claims 1-41.

Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1-41 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 2,128,973 (Tisdale) in view of U.S. Patent No. 2,198,991 (Dutton). The Examiner characterizes Tisdale as teaching a fruit coated with a wax emulsion and Dutton as teaching a plant coating including a wax emulsion and lipophilic thixotropic smectic clay. According to the Examiner, it would have been obvious to one of ordinary skill in the art to modify the teachings of Tisdale with the composition of Dutton to arrive at the claimed invention. Applicants respectfully disagree with the Examiner's characterization of Tisdale and Dutton, for the reasons discussed below.

There are requirements for establishing a *prima facie* case of obviousness. First, there must be some suggestion or motivation, either in the references themselves or in knowledge generally available to one of ordinary skill in the art, to modify the references. Second, there must be a reasonable expectation of success. Third, the prior art references must teach or suggest all the claim limitations. Applicants respectfully submit that the Examiner has failed to establish a *prima facie* case of obviousness for the following reasons.

Independent Claims 1, 11, 12, and 27 are directed to compositions comprising lipophilic thixotropic smectic clay and a wax emulsions, and methods for protecting plants by treating them with these compositions. Claims 2-10, 13-27, and 28-41 depend from Claims 1, 12, and 27, respectively. The Examiner acknowledges that Tisdale does not disclose or suggest compositions including lipophilic thixotropic smectic clay. Applicants submit that Tisdale also does not teach or suggest coating fruit with a wax emulsion. Instead, the compositions of Tisdale

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CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

comprise rosin, or rosin esters of glycerol or diethylene glycol. Rosin is a mixture of C_{20}, tricyclic fused-ring, monocarboxylic acids, typified by pimaric acid and abietic acids. *See* U.S. Patent No. 6,593,407, Column 2, lines 62-65 (Appendix A). *See also Merck Index of Chemicals, Drugs, and Biologicals* (1989), page 1314 (stating that rosin contains "about 90% resin acids and 10% neutral matter. Of the resin acids about 90% are isomeric with abietic acid ($C_{20}H_{30}O_2$) the other 10% is a mixture of dihydroabietic acid ($C_{20}H_{32}O_2$) and dehydroabietic acid $CC_{20}H_{28}O_2$)" (Appendix B)). In contrast, waxes are principally esters of long-chain, even-numbered fatty acids with long-chain, even-numbered monohydric alcohols, and contain only one ester linkage per molecule. Waxes are not esters of glycerol. *See* Hart & Schuetz, *A Short Course in Organic Chemistry*, page 210 (Appendix C). Although Tisdale mentions waxes, it only does so in the context of describing prior art coating agents for application to fruit "for retarding desiccation and decay, and for improving the appearance of the products." Tisdale, page 1, Column 1, lines 3-12. In fact, Tisdale distinguishes rosin from waxes by stating that "[p]araffin and other waxes, such as carnauba wax, are being used for this purpose. Rosin, gelatin, and various other products have been employed." Tisdale, page 1, Column 1, lines 12-15. Therefore, Tisdale neither teaches nor suggests compositions containing waxes, as required by Claims 1-41.

Moreover, applicants submit that Dutton neither teaches nor suggests a composition including a wax emulsion and lipophilic thixotropic smectic clay. Instead, Dutton discloses a composition comprising a wax, an ammonium salt of an acid of a drying oil, and a colloidal earth, such as "[b]entonite, fuller's earth, and similar diatomaceous clays." Dutton, page 2, Column 1, lines 36-47. The clays, such as bentonite, disclosed in Dutton are *hydrophilic*. S*ee, e.g.*, U.S. Patent No. 4,344,858, Column 2, line 46 (referring to "hydrophilic colloidal clay like bentonite"(Appendix D)). *See also Merck Index of Chemicals, Drugs, and Biologicals* (1989), page 164 (stating bentonite has the property of forming highly viscous suspensions or gels with

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CHRISTENSEN O'CONNOR JOHNSON KINDNESS PLLC
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

not less than ten times its weight of water" (Appendix E)). In contrast, applicants' claims recite a *lipophilic* clay. Dutton does not disclose or suggest the use of lipophilic thixotropic smectic clay. Therefore, Dutton neither teaches nor suggests compositions containing lipophilic thixotropic smectic clay, as required by Claims 1-41.

Since neither Tisdale nor Dutton disclose or suggest compositions comprising a wax emulsion and a lipophilic thixotropic smectic clay, these references do not teach or suggest all the claim limitations. Accordingly, the invention recited in Claims 1-41 is not obvious over these references. Applicants respectfully request withdrawal of this ground of rejection.

Conclusion

In view of the foregoing remarks, applicants respectfully submit that Claims 1-41 are in condition for allowance. If any issues remain that may be expeditiously addressed in a telephone interview, the Examiner is encouraged to telephone applicants' attorney at 206.695.1718.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}

Karen B. Blöchlinger, Ph.D.
Registration No. 41,395
Direct Dial No. 206.695.1783

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100